551.506 (261.1)

WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

The average pressure for the month was very much higher than usual at land stations in the British Isles, while on the Atlantic and Gulf coasts of the United States, as well as in the West Indies, the Bermudas, and Azores, it was not far from the normal.

The number of days on which fog was observed was somewhat below the normal on the Banks of Newfoundland and above in the waters adjacent to the west coast of Ireland, while it was comparatively rare over the middle section of the steamer lanes.

June is ordinarily characterized by quiet weather, and, taking the ocean as a whole, the month under discussion was no exception to the general rule, although in the two 5-degree squares between latitudes 40° and 45° and longitudes 40° to 50° gales were reported on three days, which is considerably above the normal for that region. They were also observed on two days in the northwestern section of the Gulf of Mexico, due to the tropical disturbance that occurred in the last decade of the month, which will be referred to later.

From the 1st to the 5th moderate weather was the rule over practically the entire ocean, with fog over the Grand Banks on the 1st and 2d and in the vicinity of the British Isles on the 3d and 4th. The observer of the British S. S. *War Mehtar* stated that on the 1st, while off the southeast coast of Florida, excessive refraction was observed in the strongest part of the Gulf Stream, temperature of the air 80° F., water 79° F.

On the 6th there was a well-developed LOW of limited extent, central near latitude 39° N., longitude 62° W. It moved slowly eastward during the next 24 hours, gradually decreasing in intensity. Storm logs follow:

British S. S. *British Beacon:*

Gale began on the 5th, wind NNE.; lowest barometer 29.79 inches at 8 p. m. on the 6th; wind NE., 9; position, latitude 39° 52′ N., longitude 61° 30′ W. End of gale on the 7th. Highest force of wind 10, NE. Steady from NE.

American S. S. *Hattie Luckenbach:*

Gale began on the 6th, wind S.; lowest barometer 29.52 inches at 5 a. m. on the 7th; wind SSW.; position, latitude 40° 30′ N., longitude 56° 40′ W. End at noon on the 7th, wind NNW. Highest force 8, shifts SW.–NW. in sudden squalls.

On the 8th the British S. S. *Galtymore* experienced a westerly gale, as shown by the following storm log:

Gale began on the 8th, wind SW.; lowest barometer 29.57 inches at 1 a. m. on the 8th; wind SW., 7; position, latitude 53° 50′ N., longitude 57° 19′ W. End on the 8th, wind N. Highest force of wind 8, SW.; shifts, SW.–W.–NW. –N.

On the 9th westerly gales were encountered off the west coast of Scotland, and one storm log was received from a vessel in the western part of the steamer lanes, although moderate weather seemed to be the rule over the greater part of that region. Storm logs follow:

British S. S. *Lexington:*

Gale began on the 9th, wind SW.; lowest barometer 29.71 inches at noon on the 9th; wind W., 9, at Greenock, Scotland. End on the 10th. Highest force of wind, 11; steady from west.

American S. S. *Asquam:*

Gale began on the 9th, wind ENE.; lowest barometer 30.07 inches at 8 p. m. on the 9th; wind ENE., 9; position, latitude 40° 10′ N., longitude 53° W. End on the 10th, wind ENE. Highest force of wind 9, ENE. Steady from ENE.

On the 12th there was a disturbance central in the vicinity of the coast of Nova Scotia, moderate gales being reported in the easterly and southerly quadrants. Storm log follows:

Dutch S. S. *Westerdijk:*

Gale began on the 12th, wind SW.; lowest barometer 29.67 inches at 7 p. m. on the 12th; wind WSW., 6; position, latitude 40° 25′ N., longitude 65° 40′ W. End on the 12th, wind WSW. Highest force 8, WSW.; shifts WSW.–NW.

On the 14th a few vessels in the western section of the ocean recorded gales, although moderate weather prevailed for the most part.

On the 17th two vessels about 200 miles west of Swan Island reported easterly gales, although no storm logs were rendered.

The daily weather map for the 17th shows a slight depression in the southern part of the Gulf of Mexico, that afterwards developed into a severe tropical disturbance, as shown on Charts IX, X and XI for June 20, 21, and 22 respectively.

According to press reports this storm caused a great deal of damage along the Texas coast, at least six vessels being sunk, and a large number of other casualties also reported. The New York Maritime Register of July 6, published a very interesting account, taken from the Galveston News, of the experience of the American tanker *William H. Doheny*, Capt. Locke, during this gale.

This vessel left Galveston for Tampico in ballast on the afternoon of the 21st, sky overcast and wind moderate. About 10 p. m. on the 21st received a radio stating that there was a storm off the Rio Grande moving in a northwesterly direction. Barometer read 29.80 inches at that time and falling slowly, wind force 5 (direction not given). Everything was made ready for rough weather, and by midnight, when about 70 miles off Galveston, wind rose to force of 8, with heavy squalls and downpour of rain. The violence of the weather increased, and by 4 a. m. on the 22d it was raining so hard that it was impossible to see more than a ship's length, the force of the wind being 10. By 5:35 a. m. the force had increased to 11 or 12 from the ENE., with tremendous seas. Just at that time the propellor dropped off, leaving the ship to the mercy of the seas. The stream anchor was put out forward in 25 fathoms of water and the head of the ship brought into the wind. At 8 a. m. on the 22d the sea was far too heavy to anchor, as there would have been danger of the anchor chains parting. The rain still fell in torrents, and it was impossible to see more than a ship's length ahead, while the vessel was drifting toward the beach helpless. Suddenly, at about 10 a. m., the wind decreased in force, showing that the center of the hurricane was near, the barometer reading 28.93 inches. The vessel was in 10 fathoms of water with the wind shifting from east to west, and a rising barometer. It was a dead calm, the smoke from the stack rising straight up into the sky with now and then an irregular wave, while the air was filled with thousands of birds and insects caught in the whirl and unable to fight their way outside. The calm lasted only a short time, as by 10:20 the wind began to blow from the west, steadily increasing until it reached a force of 11. As it fortunately came from the west it blew the vessel off shore, saving her from being beached, as she undoubtedly would have been if she had not been in the direct center of the hurricane. Gradually the wind decreased, and at 7 p. m. the ship anchored in 17 fathoms

of water off Cavallo Pass; latitude 28° 10′ N., longitude 95° 56′ W., where she remained until towed into Galveston the next morning. Storm reports from other vessels follow:

American S. S. *Alabama:*

On the 20th, moderate to whole gale, rough sea, overcast and rain; vessel hove to. On the 21st moderate gale to fresh breeze, overcast and rain; hove to from 1 a. m. to 9 p. m. Position, 7 a. m., 20th, latitude 23° N., longitude 94° 40′ W.; 7 p. m., 21st, latitude 23° 10′ N., longitude 94° 15′ W.

American S. S. *Waxahachie:*

At 1 p. m., G. M. T., 22d, hurricane central near latitude 29° N., longitude 94° W. Highest force of wind 11, SE. Lowest barometer 29.60 inches.

On the 19th and 20th southerly gales prevailed over a limited area between the 35th and 45th parallels, and the 40th and 50th meridians. Storm logs follow:

British S. S. *Strathearn:*

Gale began on the 19th, wind SSE.; lowest barometer 29.68 inches at noon on the 19th, wind SSE., 8; position, latitude 43° 04′ N., longitude 43° 41′ W. End of gale on the 19th, wind S. Highest force of wind 8, SSE.; shifts SSE.–SSW.–SW.–S.

American S. S. *Editor:*

Gale began on the 19th; lowest barometer 29.79 inches at noon on the 20th, wind S., 8; position, latitude 44° 30′ N., longitude 40° 45′ W. End of gale on the 21st, wind WNW. Highest force of wind 8, S.; shifts S.–SW.–WSW.–WNW.

The observer on board the British S. S. *War Mehtar* states that at noon on the 22d, while at latitude 41° 35′ N., longitude 30° 51′ W., passed through tide rip extending in a north and south direction. Foam on outer edges. Temperature of air 76° F., water 69.5° F.

On the 23d moderate northerly gales were encountered over a small area between the 40th and 45th parallels and the 40th and 50th meridians. Storm log follows:

British S. S. *Aspinet:*

Gale began on the 22d, wind SSE.; lowest barometer 29.73 inches at 4 a. m. on the 23d, wind N., 5; position, latitude 42° 38′ N., longitude 44° 26′ W. End of gale on the 23d, wind NNW. Highest force 8, NNW.; shifts not given.

On the 24th and 25th moderate weather was general over the entire ocean, while on the 26th the conditions were similar, except that one vessel reported a moderate gale, as shown by the following storm log:

American S. S. *Steelmaker:*

Gale began on the 25th, wind SSW.; lowest barometer 29.90 inches at 7 p. m. on the 26th, wind SSW.; position, latitude 39° 51′ N., longitude 49° W. End at 8:50 p. m. on the 26th, wind NW.; highest force 8; shifts SSW.–NW.

During the remainder of the month only light to moderate winds were reported over the entire ocean.

The observer on board the American S. S. *Steelmaker* states that at 5:45 p. m. on the 28th, position, latitude 40° 04′ N., longitude 60° 38′ W., observed marked tide rip extending to NNW. and SSE. horizons in a straight line.

The observer on board the British S. S. *Antillian* reports that on the night of the 14th, latitude 52° 21′ N., longitude 6° W., he saw quite distinctly the flashing light on Bardsey Island, Wales; bearing 60° true, distance 55 miles.

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NORTH PACIFIC OCEAN.

By F. G. TINGLEY.

At Dutch Harbor pressure was below normal by some 0.30 inch during the first decade, above normal by about 0.12 inch during the second decade, and below by 0.36 inch during the last decade. At Honolulu it was below normal by 0.04 inch during the first and second decades and approximately normal in the last. At Midway Island it was below normal for the periods 1–5 and 12–17, by about 0.08 inch in each instance, and above normal on other days, the average plus departure being some 0.06 inch.

As will be seen these pressure departures indicate almost a normal degree of atmospheric fluctuation for June and offer very little in the way of explanation for the heat wave which broke upon several continental areas toward the end of the month.

So far as known no typhoons occurred during the month, although it is possible that the one which struck Manila on July 5 may have been in existence at the end of June.

At the beginning of the month a moderate depression was central near the Bonin Islands. During the 2d and 3d it moved slowly north-northeastward and developed somewhat, causing northerly to easterly gales to the east of the Japanese Islands. It disappeared in the direction of Bering Sea on the 5th.

The American four-masted bark, *Moshula*, Capt. F. O. Parker, Manila for San Francisco, encountered this gale on the 3d in latitude 39° 04′ N., longitude 155° 25′ E. The wind set in from ESE. and backed to NE.; highest force 10; barometer at noon of 3d, 29.37 inches. The *Moshula* lost her fore lower topsail, mizzen upper topsail, and jib in this gale.[1]

This depression was followed by another of moderate character which caused a fresh easterly gale in the Yellow Sea on the 4th. The latter depression does not appear to have developed.

On the 5th there were evidences of a large but rather shallow depression between Dutch Harbor and Midway Island. By the following day it had developed somewhat to the northeastward with barometer readings as low as 29.16 inches in the southern part of the Gulf of Alaska accompanied by a fresh SE. gale. This depression moved very slowly and still covered the same waters on the 12th. On the 13th, however, it moved inland on the British Columbian coast, in advance of the rising pressure in the region of the Aleutians.

The Japanese S. S. *Suwa Maru*, Capt. M. Machida, Yokohama (May 28) for Seattle, had this gale from the 6th to 8th. Second Officer and Observer, S. Mitomi, furnishes the following report:

Gale began on the 6th, wind SW.; lowest barometer, 29.16 inches at 6 a. m., same date, in latitude 51° 55′ N., longitude 145° 30′ W.; end of gale on the 8th, wind SE.; highest force, 9, SE.

Prior to the passing of this depression the North Pacific anticyclone had not attained the normal development for June. Its crest during this month is located in about latitude 37° N., longitude 147° W., with a central isobar of 30.25 inches. Up to the 13th, there was only a weak anticyclone between the Hawaiian Islands and the Lower California Peninsula. With the passing of the depression just referred to, however, this area was reinforced by the rising pressure over the Aleutians, thereby causing the center to shift to the northwestward to about the usual position, where it remained to the end of the month.

During the last half of the month two moderate depressions moved slowly across the northern part of the ocean. The first of these was in evidence to the southward of Japan on the 15th, whence it moved northeastward to the region of the Aleutians by the 21st.

[1] Further particulars regarding the report of this vessel will be found on page 360.